

<b>ORDER FOR SUPPLIES OR SERVICES</b>										PAGE 1 OF 16									
1 CONTRACT/PURCH ORDER/ AGREEMENT NO N65540-15-D-0007			2 DELIVERY ORDER/ CALL NO 0015		3 DATE OF ORDER/ CALL (YYYYMMDD) 2017 Feb 01		4 REQ / PURCH REQUEST NO 1300614783		5 PRIORITY										
6 ISSUED BY CODE N64498 NAVAL SURFACE WARFARE CENTER PHILA (b) (6) 5001 SOUTH BROAD STREET PHILADELPHIA PA 19112			7 ADMINISTERED BY (if other than 6) CODE S5111A DCMA HAMPTON 2000 ENTERPRISE PARKWAY HAMPTON VA 23666				8 DELIVERY FOB <input checked="" type="checkbox"/> DESTINATION <input type="checkbox"/> OTHER (See Schedule if other)												
9 CONTRACTOR CODE 1LT84 AMSEC LLC NAME CHRISTINA N. WILSON AND 5701 CLEVELAND ST ADDRESS VIRGINIA BEACH VA 23462-1788			FACILITY		10 DELIVER TO FOB POINT BY (Date) (YYYYMMDD) <b>SEE SCHEDULE</b>			11 MARK IF BUSINESS IS <input type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGED <input type="checkbox"/> WOMEN-OWNED											
					12 DISCOUNT TERMS			13 MAIL INVOICES TO THE ADDRESS IN BLOCK See Item 15											
14 SHIP TO CODE N64498 NAVAL SURFACE WARFARE CENTER PHILA (b) (6) NSWC PHILADELPHIA DIVISION NSLC DETACHMENT 1601 LANGLEY AVE, (b) (6) PHILADELPHIA PA 19112-5051			15 PAYMENT WILL BE MADE BY CODE HQ0338 DFAS COLUMBUS CENTER, SOUTH ENTITLEMENT O P.O. BOX 182264 COLUMBUS OH 43218-2264				<b>MARK ALL PACKAGES AND PAPERS WITH IDENTIFICATION NUMBERS IN BLOCKS 1 AND 2.</b>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 5px;">16 TYPE OF ORDER</td> <td style="width: 10%; padding: 5px;">DELIVERY/ CALL</td> <td style="width: 5%; padding: 5px;"><input checked="" type="checkbox"/></td> <td style="padding: 5px;">This delivery order/call is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">PURCHASE</td> <td style="padding: 5px;"><input type="checkbox"/></td> <td style="padding: 5px;">Reference your quote dated Furnish the following on terms specified herein REF:</td> </tr> </table>												16 TYPE OF ORDER	DELIVERY/ CALL	<input checked="" type="checkbox"/>	This delivery order/call is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract		PURCHASE	<input type="checkbox"/>	Reference your quote dated Furnish the following on terms specified herein REF:
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ACCEPTANCE THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME																			
NAME OF CONTRACTOR			SIGNATURE			TYPED NAME AND TITLE			DATE SIGNED (YYYYMMDD)										
<input type="checkbox"/> If this box is marked, supplier must sign Acceptance and return the following number of copies:																			
17 ACCOUNTING AND APPROPRIATION DATA/ LOCAL USE																			
<b>See Schedule</b>																			
18 ITEM NO		19 SCHEDULE OF SUPPLIES/ SERVICES			20 QUANTITY ORDERED/ ACCEPTED*		21 UNIT	22 UNIT PRICE		23 AMOUNT									
		<b>SEE SCHEDULE</b>																	
* If quantity accepted by the Government is same as quantity ordered, indicate by X. If different, enter actual quantity accepted below quantity ordered and encircle.					24. UNITED STATES OF AMERICA TEL: (b) (6) EMAIL: (b) (6) BY: Jane M. DeMatto			25 TOTAL \$2,093,194.80											
27a QUANTITY IN COLUMN 20 HAS BEEN					CONTRACTING / ORDERING OFFICER			26 DIFFERENCES											
<input type="checkbox"/> INSPECTED <input type="checkbox"/> RECEIVED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED																			
b SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE					c DATE (YYYYMMDD)		d PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE												
e MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE					28 SHIP NO		29 DO VOUCHER NO		30 INITIALS										
f TELEPHONE NUMBER		g E-MAIL ADDRESS			<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		32 PAID BY		33 AMOUNT VERIFIED CORRECT FOR										
36. I certify this account is correct and proper for payment.					31 PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL				34 CHECK NUMBER										
a DATE (YYYYMMDD)		b SIGNATURE AND TITLE OF CERTIFYING OFFICER							35 BILL OF LADING NO										
37 RECEIVED AT		38 RECEIVED BY		39 DATE RECEIVED (YYYYMMDD)		40 TOTAL CONTAINERS		41 S/R ACCOUNT NO		42 S/R VOUCHER NO									

## Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	Engineering and Technical Services CPFF FOB: Destination				\$0.00
				ESTIMATED COST	\$0.00
				FIXED FEE	\$0.00
				TOTAL EST COST + FEE	\$0.00

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AA	Holding SLIN for CLIN 0003 CPFF This priced SLIN is a Holding SLIN for administrative purposes. This SLIN will be reduced with every additional incremental funding modification. The remaining ceiling is (b) (4) FOB: Destination	1	Lot		(b) (4)
				ESTIMATED COST	
				FIXED FEE	
				TOTAL EST COST + FEE	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AB	Funding for CLIN 0003 CPFF 10 U.S.C. 2410(a) is hereby invoked. Funding availability for performance until one year after the effective date of Delivery Order 0015. FOB: Destination PURCHASE REQUEST NUMBER: 1300614783	1	Lot		(b) (4)
				ESTIMATED COST	
				FIXED FEE	
				TOTAL EST COST + FEE	
	ACRN AA CIN: 130061478300001				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AC	Funding for CLIN 0003 CPFF 10 U.S.C. 2410(a) is hereby invoked. Funding availability for performance until one year after the effective date of Delivery Order 0015. FOB: Destination PURCHASE REQUEST NUMBER: 1300614783	1	Lot		(b) (4)
ESTIMATED COST FIXED FEE					
TOTAL EST COST + FEE					
ACRN AA CIN: 130061478300002					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	Support Costs COST FOB: Destination				(b) (4)
ESTIMATED COST					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AA	Holding SLIN for CLIN 0004 COST This priced SLIN is a Holding SLIN for administrative purposes. This SLIN will be reduced with every additional incremental funding modification. The remaining ceiling is (b) (4) FOB: Destination	1	Lot		(b) (4)
ESTIMATED COST					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AB		1	Lot		(b) (4)

Funding for CLIN 0004

COST

10 U.S.C. 2410(a) is hereby invoked. Funding availability for performance until one year after the effective date of Delivery Order 0015.

FOB: Destination

PURCHASE REQUEST NUMBER: 1300614783

ESTIMATED COST

ACRN AA

CIN: 130061478300002

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005					NSP

Technical Data

Not Separately Priced

FOB: Destination

FFP

NET AMT

\$0.00

Labor Category	ST Hours	OT Hours
Program Manager	(b) (4)	
Senior Engineer		
Engineer		
Logistician		
Quality Assurance Specialist		
Technical Writer		
Systems/Program Analyst		
Clerk/Typist		
Site Foreman		
QA Technician		
Shipfitter/Welder/Burner		
Marine Equip Mechanic		
Maint Trades Helper		
Planner/Estimator		
Total Hours	5,526	2,210

(b) (4)  
Labor Cost:  
Fixed Fee:  
Total Labor:  
Support Costs  
Total CPFF: \$2,093,194.80

This order has hereby been awarded in the amount of \$2,093,194.80 and incremental funding in the amount of (b) (4). As a result the total amount of funding obligated and available for payment under this order is (b) (4). It is estimated that the funding for this order will cover the cost of performance through 15 July 2017. In accordance with clause 52.232-22 Limitation of Funds, the Government is not obligated to reimburse the contractor for any costs in excess of (b) (4) unless additional funds are made available and obligated under this order in a subsequent modification. The total unfunded balance remaining is (b) (4).

**Note:**

AMSEC has proposed (b) (4) as a subcontractor for the subject delivery order. The adding of any additional subcontractor or subcontractors must be approved by the contracting officer regardless of the dollar value.

## Section C - Descriptions and Specifications

STATEMENT OF WORK**CVN-(b) RETUBE A/C PLANT CONDENSERS AND EVAPORATORS  
ON AC PLANTS 2, 3, 4, 5 AND 8****1.0 BACKGROUND**

- 1.1 SCD 8198 (Retube AC Plant Condenser and Evaporator): Current AC plant capacity meets demand but will not be sufficient to maintain anticipated projected AC plant loads due to upcoming modernizations. SCD 8198 was developed to increase the capacity to meet future load growth. If this alteration is not accomplished then an additional AC plant will be required to meet the projected demand. This alteration will increase the capacity of the 363 ton AC plant by retubing the evaporators and condensers. This retubing will result in a net increase of approximately 32 tons per plant at design conditions. In addition, retubing will provide life cycle cost savings by preventing tube failures and the associated compressor rebuilding costs. This alteration will result in significant cost avoidance compared to installation of AC plant No. 11. In order to accomplish this SCD, AC plant(s) will be tagged out and evaporators and condensers drained. Interfering systems along with the condenser/evaporator heads will be removed. For the evaporator the existing copper 19 FPI will be cut out and new high efficiency Turbo B tubes will be rolled into the tube sheet. For the condenser the existing 70/30 CuNi 26 FPI tubes will be cut out and new higher efficiency 70/30 CuNi 40 FPI will be rolled into place. If the refrigerant boundary is established or intact, the plant will be pressure tested upon completion of the installation to demonstrate the integrity of the rolled joints. Upon satisfactory pressure testing the evaporator and condenser heads will be reinstalled and the plant operationally tested and placed back in service.

**2.0 SCOPE**

- 2.1 The contractor shall provide technical installation services to complete the installation of SCD 8198 on (b) (2) (CVN (b) ). The location for installation services is Puget Sound Naval Shipyard, Bremerton, WA.
- 2.2 The contractor shall accomplish SCD 8198 during (b) (2) FY17 Planned Incremental Availability (PIA) period starting February 2017. The SCD shall be installed only on AC Plants 2, 3, 4, 5, and 8. The contractor shall utilize the appropriate installation procedures, SIDs, and supporting documentation outlined in Para. 3.0 to accomplish the preparation, installation, and testing of the SCD.
- 2.3 Prior to starting the SCD installation and for any time during the installation in which the plants will remain inactive for longer than one week, the contractor shall accomplish A/C plant Inactive Equipment Maintenance (IEM). IEM includes the tag out of the Chilled Water and Seawater systems, draining of oil from the compressor, transferring refrigerant charge into recovery bottles, applying a 5-lb. nitrogen blanket and attaching a pressure gage to each A/C plant for daily monitoring while power is removed. Ship's Force shall be responsible for monitoring and reporting nitrogen levels to maintain the blanket.
- 2.4 Prior to starting SCD 8198, the contractor shall remove any adjacent interfering equipment as necessary to provide the required space to complete the removal and

installation of the condenser and evaporator tubes. The contractor shall not be responsible for removing interfering equipment around AC Plant #5, which will be accomplished by Puget Sound Naval Shipyard (PSNS). The contractor shall use Ref. 3.14, which are interference removal drawings, as a guide to removing the interfering equipment on CVN-(b). The contractor shall document any permanent changes to the interfering systems (piping cut, flange installation, etc) called out by the interference drawings via a condition report. The contractor shall also document any deviation from interference drawings via a condition report and red-lined interference drawings. Removal of interfering equipment may involve hot work, removing residual water from piping, painting, and lagging. After completion of tube installation, the contractor shall re-install all previously removed interfering equipment and perform the appropriate pressure testing on disturbed piping.

- 2.5 The contractor shall execute the installation of SCD 8198 on five (5) AC Plants (#2, #3, #4, #5, and #8) in accordance with the Installation Instructions for Increasing the Cooling Capacity of CVN(b) Class HFC-236fa Air Conditioning Plants, Procedure Number 411/001 (Ref. 3.11) and by using NSTM Chapter 516 – Refrigeration Systems (Ref. 3.12) and NSTM Chapter 254 – Condensers, Heat Exchangers and Air Ejectors (Ref. 3.13) as guides. The contractor shall remove the existing evaporator/condenser tubes and install new replacement evaporator/condenser tubes, to be provided as GFM.
- 2.6 The contractor shall provide a local staging facility in Bremerton, WA, to receive and store the GFM tubes until the time of installation. The contractor shall be responsible for preparing the tubes for transport to the shipyard, which includes capping each tube end with the appropriate FME, safely transporting the tubes to the shipyard, and rigging new tubes onto the ship and into their respective spaces. The contractor shall be responsible for securing safe storage on the ship and within the spaces as necessary. Additionally the contractor shall be responsible for rigging the old tubes off the ship and transportation out of the shipyard. The contractor shall arrange with the DLA Disposition Services (DRMO) for disposal of the old tubes.
- 2.7 On each applicable AC Plant, the contractor shall halt work following removal of tubes and prior to installation of new tubes, and shall notify NSWCPD that all tubes have been removed from the condenser and evaporator shell. The contractor shall then complete an internal inspection with government oversight present and mechanical cleaning of the evaporator shell with all tubes removed. Contractor shall commence tube installation following successful completion of shell inspection/cleaning.
- 2.8 Upon removing tubes and after cleaning and preparing the tube sheet holes, the contractor shall take dimensional measurements on a percentage of tubes sheet holes IAW Ref. 3.11 in order to check for hole roundness and discontinuities. All measurements taken shall be recorded in a detailed Excel spreadsheet and provided to NSWCPD. NSWCPD shall review and approve the data prior to the contractor rolling new tubes.
- 2.9 Following installation and rolling of all tubes, the contractor shall perform a leak test to verify tightness of each tube-to-tube sheet joint. If any leaks are found, the contractor shall attempt to correct the leak in accordance with Ref. 3.11. If the leak cannot be sealed in accordance with Ref. 3.11, the contractor shall report the discrepancy via condition report identifying additional material and/or labor required to repair the leak. Following correction of any leaks, the contractor shall perform a subsequent leak test

to verify repairs IAW Ref. 3.11, ensuring all previously found leaks were fixed after re-rolling affected tubes.

- 2.10 Upon completion of tube installation and leak tests, the contractor shall reinstall the evaporator and condenser heads with new head gaskets and perform hydrostatic tests on the evaporator and condenser in accordance with Ref. 3.11. If the plant is expected to be inactive for longer than one week the contractor will be responsible for re-administering a nitrogen blanket.
- 2.11 The contractor shall operationally test each A/C Plant to verify full operational capability of each plant. The contractor shall conduct a tightness test on all new and disturbed mechanical joints under normal operating conditions in accordance with the applicable SID(s). Since operational testing is dependent upon support systems and plant availability, testing may be deferred with NSWCPD concurrence.
- 2.12 The contractor shall also install SCD 1269, Chilled Water-Cooled Bellows Shaft Seal modifications, on five (5) AC Plants (#2, #3, #4, #5, and #8) and the installation shall occur in conjunction with SCD 8198. The contractor shall install the modification in accordance with the ship installation drawings, which will be provided upon RFQ award. The contractor shall use CVN(b) SCD 1269 SIDs, referenced in this SOW as a basis for their estimate. The contractor shall be responsible for procuring all items in the 1269 SIDs "List of Material" except for the Bellows-Type Shaft Seal Replacement Kit, which will be provided as GFM.
- 2.13 The availability Lead Maintenance Activity (LMA) is responsible for providing the below support items. The contractor shall be responsible for coordinating with the LMA to ensure that all support requirements are arranged to support work without delay or disruption. The LMA will provide:
  - 2.13.1 Laydown space for contractor-supplied CONEX boxes and trailers.
  - 2.13.2 Crane and fork lifts
  - 2.13.3 Compressed air, supply and exhaust ventilation, lighting, and electrical power in work spaces.
  - 2.13.4 Nitrogen supply to support pressure testing
  - 2.13.5 Pumper services
  - 2.13.6 Services to remove all interferences for AC Plant #5 in Main Machinery Room No 1 (4-113-0-E) up to the AC plant evaporator and condenser heads.
- 2.14 The contractor shall provide all services relative to the installation of SCD 8198. Specifically, the contractor shall:
  - 2.14.1 Pier side CONEX boxes or trailers, as needed.
  - 2.14.2 Rigging services
  - 2.14.3 Painting and lagging services for any disturbed pipe or surface
  - 2.14.4 Access cut to support tube delivery access to Plant #8. Contractor shall estimate for access cut approx. 2'x3' in AFT bulkhead of A/C Machinery Room No. 3 (5-200-2-E).

### **3.0 REFERENCE/APPLICABLE DOCUMENTS**

- 3.1 NAVSEA S9AAO-AB-GOS-010/GSO, General Specifications for Overhaul of Surface Navy Ship
- 3.2 OPNAV Instruction 5100.238, Navy Occupational Safety and Health (NAVOSH) Program Manual



- 3.3 Standards and Interpretations, Occupational Safety and Health Chapter 1915.14, 1915.15 and 1915.16
- 3.4 NAVSEA SL720-AA-MAN-030 Surface Ship & Carrier Entitled Process for Modernization
- 3.5 NAVSEA TS9090-310G SHIPALTs by Alteration Installation Teams
- 3.6 NSWCPD Installation 4720.2F Process and Policy for Shipboard Industrial Work
- 3.7 S0400-AD-URM-010ffUM, Tag-Out User's Manual ANSI/ASQC Q9002-1994, Quality Systems, Model for Quality Assurance in Production, Installation, and Servicing
- 3.8 ANSI/ISO/ASQ Q9001-2000, Quality Management Systems Requirements
- 3.9 NAVSEA STANDARD ITEMS
- 3.10 Ship Change Document 8198
- 3.11 Increasing the Cooling Capacity of (b) (2) (CVN-(b) Class HFC-236fa Air Conditioning Plants, Procedure Number 411/001 dtd 18 June 2015
- 3.12 Naval Ships' Technical Manual (NSTM) Chapter 516 – Refrigeration Systems
- 3.13 NSTM Chapter 254 – Condensers, Heat Exchangers and Air Ejectors
- 3.14 SCD 8198 Interference Removal Drawings:
  - 3.14.1 501-8620534
  - 3.14.2 502-8621441
  - 3.14.3 502-8621446
  - 3.14.4 506-8621511
  - 3.14.5 610-8621832
  - 3.14.6 303-8622378
  - 3.14.7 302-8622406
  - 3.14.8 302-8622407
  - 3.14.9 303-8622381
  - 3.14.10 502-8621447
  - 3.14.11 502-8621442
  - 3.14.12 502-8621443
  - 3.14.13 303-8622379
  - 3.14.14 302-8622408
  - 3.14.15 501-8620535
  - 3.14.16 502-8621448
  - 3.14.17 501-8620536
  - 3.14.18 302-8622410
  - 3.14.19 502-8621445
  - 3.14.20 502-8621450
  - 3.14.21 303-8622380
- 3.15 SCD 1269 CVN-(b) Ship Installation Drawings
  - 3.15.1 502-8354564 Rev A
  - 3.15.2 502-8354565 Rev B
  - 3.15.3 302-8435377 Rev A

#### 4.0 REQUIREMENTS

- 4.1 In support of SCD 8198 installation, prior to start of work, the contractor shall review all referenced installation drawings in order to gain a complete understanding of quantity and type of material required to complete these installations.

- 4.2 The contractor and any sub-contractors shall have an in-depth knowledge of the converted Navy centrifugal 363-ton HFC-236fa A/C plant design and shall be experienced in installing, adjusting, troubleshooting and maintaining all sub-components of the converted A/C plants.
- 4.3 The contractor shall provide personnel with a sufficient security clearance in order to perform the installation in Main Machinery Room No. 1 (4-113-0-E) on AC Plant #5.
- 4.4 The contractor shall prepare a detailed installation milestone schedule (POA&M) for each SCD based on the ship's availability, within thirty (30) days of Delivery Order Award. The contractor will update these POA&M's on a weekly basis and more frequently as schedules change, workflow problems occur, or other conditions warrant. The details of these POA&M's shall be coordinated with Ship's Force, Lead Maintenance Activity (LMA), PSNS, NSWCPD representatives, and other activities as necessary to ensure that proper support is available and interference or delays are minimized. The updated POA&M's shall be submitted to NSWCPD personnel no later than noon the day prior to the weekly progress meeting. (CDRL A001)
- 4.5 Using NAVSEA Standard Item 009-004 and Ref. 3.5 & 3.6, the contractor shall develop a QA Workbook for each SCD to be maintained and updated on-site. These workbooks shall be used to keep an in-process record of Quality Control Inspections and be provided to NSWCPD for review, at least 30 days prior to start of work. A completed copy of the QA Workbooks shall be provided to NSWCPD Personnel within two weeks after completion of each installation. (CDRL A002) The QA Workbooks shall be formatted as follows:
- Sect. 1 Alteration Description
  - Sect. 2 Personnel Qualifications and Certifications
  - Sect. 3 Procedures Objective Quality Evidence (OQE)
  - Sect. 4 Installation POA&M
  - Sect. 5 Ship Installation Drawing (SID) List
  - Sect. 6 Test and Inspection (T &I) Plan - This plan should identify areas requiring in-process inspections by annotating steps as Inspection (I), Verification (V), or Government (G) Points. This plan shall also incorporate all testing requirements.
  - Sect. 7 Test & Inspection Records
- 4.6 The contractor shall at local locations, order, stage, and store all miscellaneous installation material.
- 4.7 The contractor shall maintain identity of all items of material issued to ship using a DD Form 1149. Contractor shall provide copies of the DD Form 1149s to NSWCPD Personnel.
- 4.8 The contractor shall provide the necessary facilities, equipment, tools and trained trade personnel to support installation and testing of all SCD 8198 installed systems and interface equipment. In accomplishing this work, the contractor shall:
- 4.8.1 Ensure compliance with all applicable safety regulations.
  - 4.8.2 Conform to shipboard routine with regard to cleanliness, personnel conduct, and the ship's security and integrity.
  - 4.8.3 Maintain a daily work schedule that is accessible and coordinate all work with Ship's Force, LMA, PSNS, and NSWCPD Personnel.

- 4.8.4 Ensure work scheduled and accomplishments meets requirements of POA&M discussed in paragraph 4.4. All discrepancies shall be coordinated and discussed with NSWCPD personnel.
  - 4.8.5 Attend all on-site daily meetings between LMA, PSNS, Ship's Force and NSWCPD.
  - 4.8.6 Daily Work Completion Status Reports will be used to communicate work accomplished, delays or disruptions, design changes, work scheduled for the next day, and any other relevant information. The Work Completion Status Reports shall be provided to the OSIC and NSWCPD personnel no later than COB same day to provide NSWCPD time to respond, if needed, by work start/next day morning meeting. (CDRL A003)
  - 4.8.7 Obtain, stage and ship to work site all contractor furnished material necessary for each stage of the installation.
  - 4.8.8 Ensure all trade personnel meet applicable NAVSEA technical skill requirements as well as the qualification requirements of the contract.
  - 4.8.9 Provide technical support during the installation, integration and test phases to assist in the resolution of SCD 8198 upgrade discrepancies as they may occur or are identified during the availability.
  - 4.8.10 The contractor shall provide general test equipment.
  - 4.9 Throughout the installation of SCD 8198, the contractor shall report any issues or discrepancies via condition reports identifying any material and/or labor, in addition to the scope of work specified herein, that may be required to resolve the issues.
  - 4.10 The contractor shall generate a financial status report of delivery order funding to be maintained and updated weekly. Reports should include funding and task completion percentages, and all identified disconnects between work completion and funds expended shall be addressed. The first report shall be delivered to NSWCPD thirty (30) days after the delivery order award and updated and submitted monthly thereafter. (CDRL A004)
  - 4.11 The contractor shall store all reports, database printouts, QA documentation, and any documentation required by this SOW in a secure space.
  - 4.12 Provide technical and logistics support to the NSWCPD ISEAs for the procurement of incidental materials needed during testing.
  - 4.13 Provide a detailed excel spreadsheet documenting the dimensions of all measured tube sheet holes after tubes are removed and the tube sheet cleaned. The detailed spreadsheet shall be made for each plant that SCD 8198 is installed on and will record data for two tube sheets per condenser and evaporator, four tube sheets per plant.
  - 4.14 Due to the challenging nature of successfully rolling Navy AC Plant evaporator and condenser tubing with the level of precision needed to pass tightness testing, the contractor or subcontractor is required to have previous experience installing heat exchanger tubes on Navy AC plants.
- 5.0 DELIVERABLES/SCHEDULE**
- 5.1 Detailed Installation Milestone Schedules (POA&M) shall be submitted within thirty (30) working days after Delivery Order Award. These POA&M's shall be revised on-site and a copy provided to NSWCPD personnel. Updates shall be submitted weekly to NSWCPD personnel tracking progress. (Para 4.4 CDRL A001)
  - 5.2 A Quality Assurance (QA) Work Book shall be assembled for SCD by the contractor as per NAVSEA Standard Item 009-004 and Ref. 3.5 & 3.6 and maintained on-site.

This QA book shall be delivered to NSWCPD no later than thirty (30) working days prior to start of work for review and two (2) weeks after completion of installation. (Para 4.5 CDRL A004)

- 5.3 Copies of the DD Form 1149's shall be provided to NSWCPD Personnel no later than twenty-four (24) hours after issue to the ship or receiving activity. Contractor shall submit tracking information for shipping defective units to the NSWCPD ILS manager within 12 hours of initial shipment.
- 5.4 Daily Work Completion Status Reports shall be submitted to the OSIC and NSWCPD personnel each day by COB. (Para 4.8.6 CDRL A003)
- 5.5 The contractor shall submit a financial status report to NSWCPD thirty (30) days after the delivery order award and monthly thereafter. (Para 4.10 CDRL A002)

## **6.0 SCHEDULE**

- 6.1 SCD 8198 installation preparation will commence immediately upon delivery order award. Specific installation schedule will be determined by the schedule of the USS (b) (2) (CVN-(b) ), NSWCPD, and Ship's Force. Work will be accomplished during the STENNIS's FY17 PIA running from Date of Award through 31 December 2017.

## **7.0 GOVERNMENT FURNISHED INFORMATION/MATERIAL**

- 7.1 NSWCPD will provide all available CVN-(b) drawings and associated documentation.
- 7.2 NSWCPD will provide five (5) sets of SCD 8198 modification kits, to include:
  - 7.2.1 Condenser tubes, Johnson Controls Inc. (JCI)/York Part # 007-10611, Qty = 400
  - 7.2.2 Evaporator Tubes, JCI/York Part # 007-07912, Qty = 510
  - 7.2.3 Condenser tube inserts, NSN 4730-01-181-9598, Qty = 400
- 7.3 NSWCPD will provide five (5) sets of Bellows-Type Shaft Seal Replacement Kit, NSN 5340-01-565-1582

## **8.0 CONTRACTOR FURNISHED MATERIAL**

- 8.1 The contractor shall supply all required PPE for the duration of the installation.
- 8.2 The contractor shall supply all consumable tools, equipment, and material needed to execute the preparation, installation, and testing of SCD 8198, other than that listed in Para. 7.0.
- 8.3 Rigging equipment for removing condenser/evaporator head, motor and or compressor
- 8.4 Lagging
- 8.5 Special tools to roll/remove tubes
- 8.6 Special tools to install condenser tube inserts
- 8.7 Condenser tube insert adhesive (Pliobond HT-30, York Part # 013-01904-900)
- 8.8 Vacuum pump and associated hoses
- 8.9 Thermopile vacuum indicator
- 8.10 Nitrogen/regulator/hoses
- 8.11 Miscellaneous material

## **9.0 TRAVEL**

- 9.1 Authorized to Bremerton WA.

## **10.0 CLASSIFIED MATERIAL/PERSONNEL**

- 10.1 In order to accomplish SCD 8198 and SCD 1269 on AC Plant #5, the contractor must provide personnel with the appropriate security clearance to access and work in (b) (b) (2) per PSNS requirements.

## **11.0 PERIOD OF PERFORMANCE**

11.1 From Delivery Order award until 31 December 2017.

**12.0 PLACES OF PERFORMANCE**

12.1 The place of performance for this effort will be at Puget Sound Naval Shipyard, Bremerton WA.

**13.0 OVERTIME**

13.1 Overtime is authorized upon NSWCPD concurrence.

**14.0 CONTRACTOR PERSONNEL IDENTIFICATION**

14.1 In the performance of this contract, contractor employees shall identify themselves as contractor personnel by introducing themselves or being introduced as contractor personnel and by displaying distinguishing badges or other visible identification for meetings with Government personnel. Contractor personnel shall appropriately identify themselves as contractor employees in telephone conversations and formal and informal written correspondence.

**15.0 CONTRACTING OFFICER REPRESENTATIVE (COR)**

15.1 The COR for this delivery order is Mr. (b) (6) NSWCPD Code (b) (6), Philadelphia, PA (b) (6)

**16.0 SUBJECT MATTER EXPERT (SME)**

16.1 The SME for this delivery order is Mr. (b) (6) NSWCPD (b) (6)  
Philadelphia, PA (b) (6) & Mr. (b) (6) NSWCPD (b) (6)  
Philadelphia, PA (b) (6)

## Section E - Inspection and Acceptance

## INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0003	Destination	Government	Destination	Government
0003AA	Destination	Government	Destination	Government
0003AB	Destination	Government	Destination	Government
0003AC	Destination	Government	Destination	Government
0004	Destination	Government	Destination	Government
0004AA	Destination	Government	Destination	Government
0004AB	Destination	Government	Destination	Government
0005	Destination	Government	Destination	Government

## Section F - Deliveries or Performance

## DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC
0003	N/A	N/A	N/A	N/A
0003AA	POP 03-FEB-2017 TO 31-DEC-2017	N/A	NAVAL SURFACE WARFARE CENTER PHILA (b) (6) NSWC PHILADELPHIA DIVISION NSLC DETACHMENT 1601 LANGLEY AVE, (b) (6) PHILADELPHIA PA 19112-5051 (b) (6) FOB: Destination	N64498
0003AB	POP 03-FEB-2017 TO 31-DEC-2017	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	N64498
0003AC	POP 03-FEB-2017 TO 31-DEC-2017	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	N64498
0004	N/A	N/A	N/A	N/A
0004AA	POP 03-FEB-2017 TO 31-DEC-2017	N/A	NAVAL SURFACE WARFARE CENTER PHILA (b) (6) NSWC PHILADELPHIA DIVISION NSLC DETACHMENT 1601 LANGLEY AVE, (b) (6) PHILADELPHIA PA 19112-5051 (b) (6) FOB: Destination	N64498
0004AB	POP 03-FEB-2017 TO 31-DEC-2017	N/A	(SAME AS PREVIOUS LOCATION) FOB: Destination	N64498
0005	N/A	N/A	N/A	N/A

Section G - Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

AA: 1771804 8B5B 310 CV312 0 050120 2D 000000

COST CODE: A00003762695

AMOUNT: (b) (4)

CIN 130061478300001 (b) (4)

CIN 130061478300002